NIVOPLAN PLUS

Indoor and outdoor cementitious levelling mortar for walls, ceilings and floors

WHERE TO USE

Nivoplan Plus is particularly suitable for rendering and levelling indoor and outdoor wall, ceiling and floor surfaces in layers of thicknesses from 5 to 50 mm.
Nivoplan Plus makes the surfaces suitable for the installation of ceramic tiles, waterproofing, decorative plaster and other finishing coat applications.

Some application examples

· Repairing and smoothing of old screed and plasters.
· Smoothing walls, ceilings and floors prior to installing ceramic, granite and natural stone.
· Smoothing hardened and monolithic concrete substrate (walls, ceilings and floors)
· Repairing old, damaged renders.
· Levelling reinforced concrete surfaces of swimming pools and façades prior to installing ceramic coverings, waterproofing.
· Plastering of aerated concrete and brick walls.

TECHNICAL CHARACTERISTICS

Nivoplan Plus is a grey powder composed of cement, selected aggregates and special synthetic resins which, when mixed with water, provide a mix that is easy to apply with a trowel or with a rendering spraying machine.
Nivoplan Plus bonding properties can be improved by adding **Planicrete** and water to the product during mixing, approximately 1-1,5 litres per bag (used as a partial replacement for the mix water).
Adding **Planicrete** is recommended for the below statuses:
· if the plaster will receive natural stone or large size tile;
· thin applications over concrete;
· smoothing concrete swimming pools;
· application of first plaster bonding layer (thin layer applied by flat, metal trowel).
1.5 litre **Planicrete** for 1 bag of **Nivoplan Plus** is recommended for the applications of thin layers (up to 10 mm) and first bonding layer. On the other hand, 1 litre **Planicrete** is recommended for the application of plaster or screed layer (used as a partial replacement for the mix water).

RECOMMENDATIONS

· **Nivoplan Plus** must never be used on gypsum or gypsum-based surfaces, unless those surfaces have been prepared with a coat or two of **Primer G** (see relative Technical Data Sheet).
· **Nivoplan Plus** should not be mixed with gypsum, aggregate or any other additive that was not recommended.

APPLICATION PROCEDURE

Preparation of the substrate

The substrate must be compact, free of dust, loose parts and clean from oils, grease, paint or glue residues. It is recommended that too much absorbent surfaces should be wetted before the application of **Nivoplan Plus** – especially for the thin layered applications (smaller than 10 mm).
The surface of the concrete should be sufficiently rough (roughness must be even over the surface and depth of the roughness must be greater than 1 mm). Surface must be saturated with water beforehand.
Smooth and fresh concrete surfaces which has been cleaned from cement laitance and form oil must be primed with **Eco Prim Grip.**
Nivoplan Plus can be applied over damp surfaces but the setting time will be a little bit longer. **Nivoplan Plus** can be applied on the gypsum-based substrate if the substrate is primed with **Primer G** beforehand.

Preparing the mix

Nivoplan Plus should be mixed with clean water and stirred until a smooth, lump-free paste is obtained. It is advisable to use a mechanical stirrer. One 25-kg bag of **Nivoplan Plus** should be mixed with 4,5-4,75 litres of water.
25 kg bag of **Nivoplan Plus** should be mixed with 1,5 litres **Planicrete** and 3 litres of water for the application of bonding and thin layered plaster. On the other hand, 25 kg bag of **Nivoplan Plus** should be mixed with 1 litre of **Planicrete** and 3,5 litres of water for the application of subplaster layer or screed. **Nivoplan Plus** mix remains usable for 2 hours after mixing.

Applying the mix (as plaster)

It is invariably advisable to apply a first coat of **Nivoplan Plus** to the substrate to ensure perfect coverage and then, without waiting, apply the layer necessary for good levelling, up to a maximum of 5 cm at a time (max. 3 cm for smooth concrete surfaces).
The maximum thickness applied will be 3 cm in case of adding **Planicrete** because of increased plasticity of the mix.
Nivoplan Plus should be applied with a rendering machine, with a flat trowel or screed (for thick layers) under firm pressure to make the mix adhere well to the substrate. It is unadvisable to work in temperatures lower than +5°C.
1 cm-thick layer of **Nivoplan Plus** is strong enough for laying tiles on substrates with normal absorption after 24 hours under normal temperature and humidity conditions.
When applying on walls directly exposed to the sun or wind, it is advisable to wet the surface of **Nivoplan Plus** to avoid premature curing. Applied smoothing layer must be protected from rain and frost.

Applying the mix (as screed)

Spreading the screed is carried out by conventional methods.
Applied screed layer must be protected from rain and frost.

Cleaning

Tools and hands may be cleaned using water before the product sets.

PACKAGING

Nivoplan Plus is supplied in 25 kg bags.

STORAGE

Nivoplan Plus, in its original unopened packaging and in a dry place, can be stored for 12 months.

CONSUMPTION

Consumption depends on the thickness of the layer but is 1.6 kg/m² per millimetre of thickness (1 cm of thickness = 16 kg/m²).

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Instructions for the safe use of our products can be found on the latest version of the Safety Data Sheet, available from our website www.mapei.com.
PRODUCT FOR PROFESSIONAL USE.

TECHNICAL DATA (typical values)	
PRODUCT IDENTITY	
Consistency:	powder
Colour:	grey or white
Density (g/cm³):	1.5
Dry solids content (%):	100
APPLICATION DATA (+23°C - 50% B.N.)	
Mix ratio:	4.5 – 4.75 lt water per 25 kg of Nivoplan Plus
Consistency of mix:	pasty
Density of mix (g/cm³):	1.9
pH of mix:	approx. 12
Pot life:	2 hours
Application temperature range:	from +5°C to +30°C
Thickness possible for one coat (mm):	from 5 to 50
Waiting time before bonding:	> 24 hours dependent on thickness and temperature
FINAL PERFORMANCE	
Resistance to alkalis:	excellent
Resistance to oils:	excellent (poor to vegetable oils)
Resistance to fire:	A1fl
Temperature range when in use:	from –30°C to +90°C
Compatibility with adhesives:	excellent
Flexural strength 28 days (N/mm²):	≥ 4.0
Compressive strength 28 days (N/mm²):	≥ 15.0
Tensile strength 28 days (N/mm²):	≥ 0.4

WARNING

Although the technical details and recommendations contained in this product data sheet correspond to the best of our knowledge and experience, all the above information must, in every case, be taken as merely indicative and subject to confirmation after long-term practical application; for this reason, anyone who intends to use the product must ensure beforehand that it is suitable for the envisaged application. In every case, the user alone is fully responsible for any consequences deriving from the use of the product.
Please refer to the current version of the Technical Data Sheet, available from our website www.mapei.com

LEGAL NOTICE

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